ABSTRACT OF THE DISCLOSURE

In an optical disk for high density recording as DVD-RAM, for preventing the deformation of recording tracks caused by stress which may develop between the substrate and the recording stacked film formed thereon, a stress-compensation layer which comprises a metal element as Ti or Cr as the main component and has a property to undergo contraction (tensile stress) is provided, thereby to compensate the compression stress which develops in the stacked film owing to contraction of substrate surface during cooling after the thermal expansion of the substrate surface which occurs at the time of film formation and. To impart the property to contract to the layer, the layer is made to have a pillar-like structure which, starting from the lower face, reaches the upper face of the film. Thus, in the information storage medium of this invention, since internal stress between the entire stacked film and the substrate can be reduced, the deformation of the disk surface can be suppressed to a low extent, and the address reading error, crosstalk and adjacent track erasing can be avoided. Furthermore, a large number of rewriting is possible in high density recording. Thus, a quite useful information storage medium is obtained.

Accordingly, a phase-change optical disk can be realized wherein the track pitch is narrowed almost to a permissible limit relative to the predetermined light spot diameter on the premise that 10,000 times or

more, preferably 100,000 times or more, of information rewriting should be achieved. The problems of cross-erasing and reading error of ID information, such as address, caused by groove deformation, which are apt to occur when the track pitch is narrowed, can be prevented completely.